

## Diabetes

Diabetes is a chronic metabolic disease, characterised by high levels of glucose in the blood. It occurs either because the pancreas stops producing the hormone insulin (type 1 diabetes, insulin-dependent diabetes, genetic predisposition), which regulates blood sugar, or through a reduced ability to produce insulin (type 2 diabetes, non-insulin dependent, lifestyle related), or through reduced ability to respond to insulin (i.e. insulin resistance). People with diabetes are at a greater risk of developing cardiovascular diseases such as heart attack and stroke. They also have elevated risks for vision loss, foot and leg amputation due to damage to nerves and blood vessels, and renal failure requiring dialysis or transplantation.

Diabetes is one of the most common non-communicable diseases globally, affecting 422 million people in 2014, a prevalence of 9% and 7.9% amongst the male and female adult population (18 years or older) respectively (NCD Risk Factor Collaboration, 2016<sup>[1]</sup>). In Asia-Pacific, about 227 million people live with type 2 diabetes and about half of them are undiagnosed and unaware of developing long-term complications. In 2012, diabetes caused 1.5 million deaths worldwide and an additional 2.2 million deaths were related to higher-than-optimal blood glucose (WHO, 2016<sup>[2]</sup>).

Type 2 diabetes comprises 90% of people with diabetes around the world, and until recently, this type of diabetes was seen only in adults, but it is now also occurring in children. For many people, the onset of type 2 diabetes can be prevented or delayed through regular physical exercise and maintaining a healthy weight (see indicators on “Child malnutrition (including undernutrition and overweight)” in Chapter 4) and a healthy diet. The cause of type 1 diabetes is not fully understood yet – but we know there is a genetic predisposition and environmental factors play a role as well.

Amongst the 27 Asia-Pacific countries and territories in this report, the prevalence of diabetes for women ranged from 5% in Australia to 18.9% in Fiji of the adult population (Figure 3.32, right panel), while the prevalence for males ranged from 5.5% in Viet Nam to 15.9% in Fiji (Figure 3.32, left panel). In all countries and territories in this report (except Singapore), the prevalence of diabetes amongst males increased from 2000-14, whereas the prevalence of diabetes amongst women increases in all countries and territories but Japan, Korea, Brunei Darussalam, Hong Kong China and Singapore.

Amongst lower-middle- and low-income Asia-Pacific countries and territories, deaths attributable to high blood glucose increased by 14% between 2000 and 2019 (Figure 3.33). More than 260 deaths per 100 000 population were caused by high blood glucose in adults in Fiji in 2019. This mortality rate increased by 58% in Nepal between 2000 and 2019 and increased by more than 40% in Pakistan and Sri Lanka.

### Definition and comparability

Country data used in Figure 3.32 were downloaded from the NCD Risk Factor Collaboration website at: <http://ncdrisc.org/>.

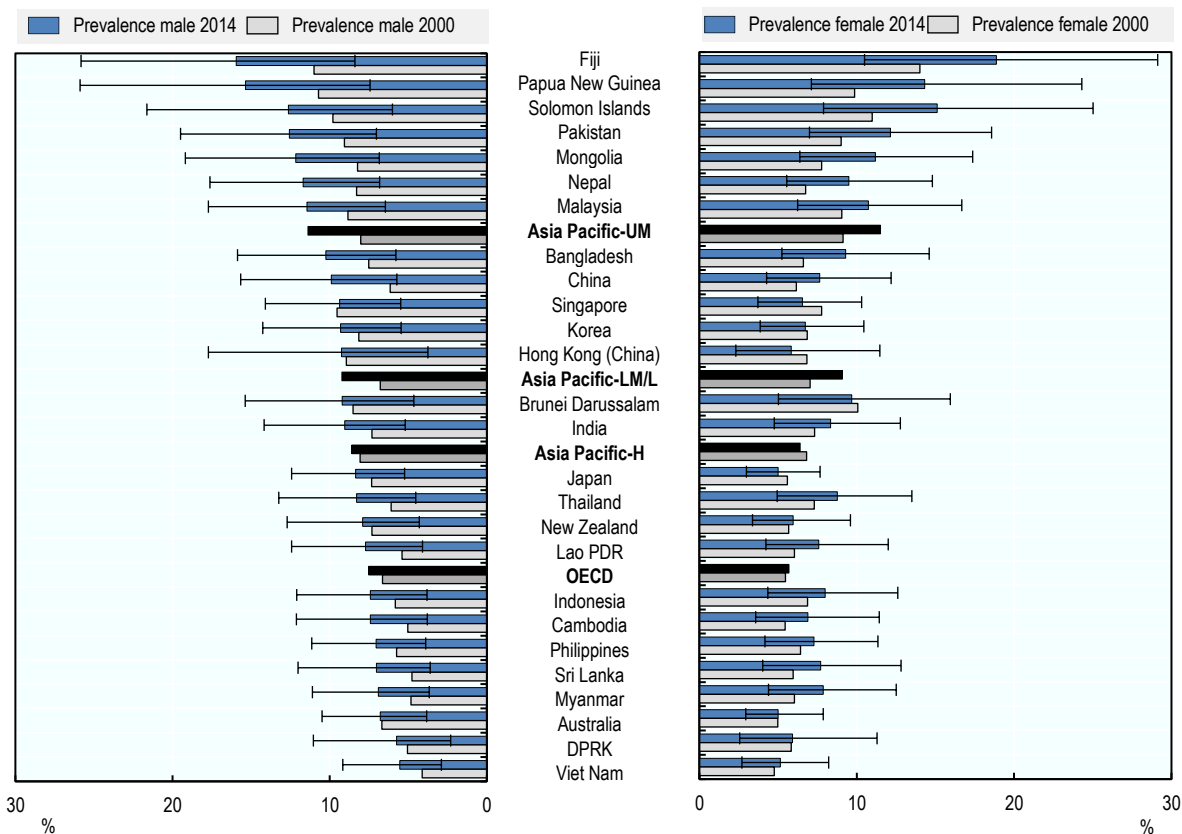
See indicator “Mortality from all causes” in Chapter 3 for definition, source, and methodology underlying mortality rates.

OECD averages are calculated as simple averages using WHO data for all 38 member countries, to improve comparability with Asia-Pacific countries and territories by using the same standardisation process.

## References

- NCD Risk Factor Collaboration (2016), “Worldwide trends in diabetes since 1980: a pooled analysis of 751 population-based studies with 4.4 million participants”, *The Lancet*, Vol. 387/10027, pp. 1513-1530, [https://doi.org/10.1016/s0140-6736\(16\)00618-8](https://doi.org/10.1016/s0140-6736(16)00618-8). [1]
- WHO (2016), *Global report on diabetes*, World Health Organization, <https://apps.who.int/iris/handle/10665/204871>. [2]

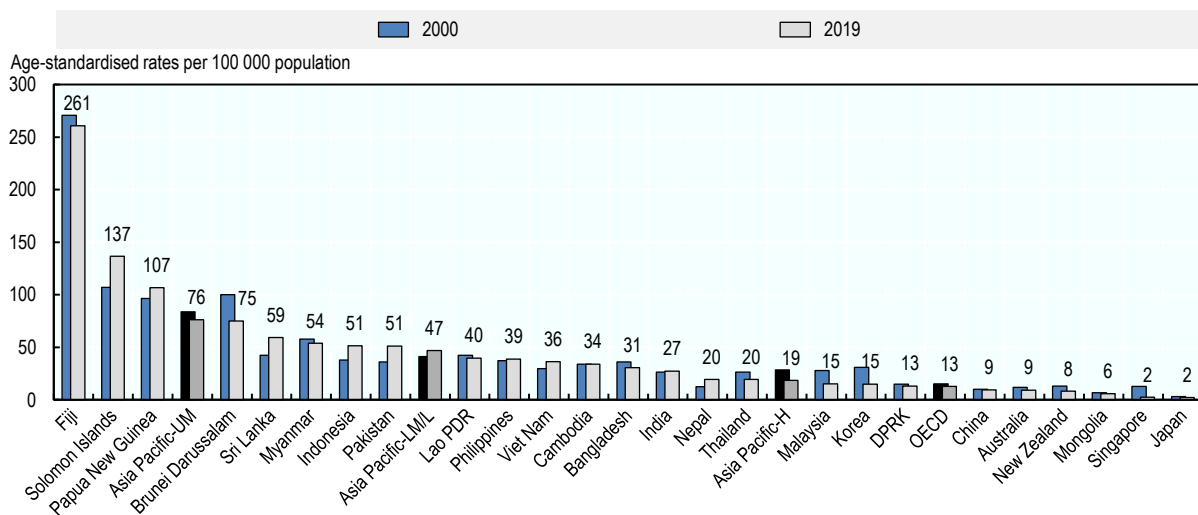
Figure 3.32. Diabetes prevalence amongst adults, 2010 and 2014



H represents 95% uncertainty intervals.  
Source: NCD Risk Factor Collaboration.

StatLink <https://stat.link/12u79b>

Figure 3.33. Deaths attributable to high blood glucose for adults, estimated mortality rates, 2000 and 2019



Source: WHO GHO 2022.

StatLink <https://stat.link/c5gi9x>



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